



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/884,523	06/18/2001	Michael G. Coutts	7603.01	3099

26889 7590 12/16/2005

MICHAEL CHAN
NCR CORPORATION
1700 SOUTH PATTERSON BLVD
DAYTON, OH 45479-0001

EXAMINER

DENNISON, JERRY B

ART UNIT

PAPER NUMBER

2143

DATE MAILED: 12/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/884,523

Applicant(s)

COUTTS ET AL.

Examiner

J. Bret Dennison

Art Unit

2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-40, 55-74, 78-81 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This Action is in response to Amendment for Application Number 09/884,523 received on 23 September 2005.
2. Claims 20-40 are presented for examination.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 27-28, and 37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 37 recites "different independent control application". It is unclear to Examiner how the independent associated control applications are different. For prosecution, Examiner will continue to interpret the limitation as each peripheral device having their own separate control application. Examiner respectfully requests clarification for this limitation. Appropriate correction is required.

Claim 37 recites "the other independent control applications". There is insufficient antecedent basis for this limitation. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 20, 21, 23 34 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Ward (U.S. Patent Number 4,636,947).

3. Regarding claim 20, Ward disclosed, a self-service terminal comprising a plurality of peripheral devices connected to a central processor and controlled by that central processor, each of the peripheral devices having an independent associated control application, the independent associated control applications being operable to communicate with each other, whereby, in use, a peripheral device operates in response to a signal generated by the central processor or another peripheral device (Ward, col. 2, lines 35-60 and Fig. 2, Ward teaches a terminal in a network where each of the peripheral devices include a subsystem controller and memory for parallel transaction event processing among other devices, Ward teaches the protocol handler tasks for controlling data formatting and timing between devices communicating in an on-line network. In order for an ATM to properly operate, the peripherals function in a ordered sequence and therefore they do operate in response to signals generated by the peripheral devices whose operation comes beforehand in the sequence).

Art Unit: 2143

4. Regarding claim 21, Ward disclosed the limitations, substantially as claimed, as described in claim 20, including wherein the independent associated control applications communicate with each other using a peer-to-peer communication protocol (Ward, col. 3, lines 20-25, Fig. 2).

5. Regarding claim 23, Ward discloses the limitations, substantially as claimed, as described in claim 20, including wherein the independent associated control applications communicate with each other using signals addressed directly to selected peripheral devices so that a peripheral device only communicates with those peripheral devices whose operation depends on or is connected with the state of that peripheral device (Ward, col. 3, lines 40-60, col. 4, lines 1-10, 30-35, Ward disclosed that the peripherals operate in a transaction sequence, meaning that a peripheral device operates according to the operation of peripheral devices that operate before it).

6. Regarding claim 34, Ward discloses the limitations, substantially as claimed, as described in claim 20, including wherein, in use, each of the independent associated control applications are executed on a single central processor (Ward, col. 3, lines 20-26).

7. Regarding claim 36, Ward discloses the limitations, substantially as claimed, as described in claim 20, including wherein the peripheral devices are

Art Unit: 2143

selected from the following peripheral devices: user interface, card reader, receipt printer, cash dispenser, and a bar code scanner (Ward, Fig. 2, 96).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 22, 24-33, 35 and 37-40, 55-74, and 78-81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ward in view of Kraslavsky et al. (U.S. Patent Number 5,537,626).

9. Regarding claim 22, Ward disclosed the limitations, substantially as claimed, as described in claim 20. Ward did not explicitly state wherein the independent associated control applications communicate with each other using broadcast signals in order to communicate a present state of the peripheral devices. Kraslavsky disclosed communication links that enable peripheral devices of a terminal to communicate with each other through broadcasting (Kraslavsky, col. 14, lines 5-22). It would have been obvious to one in the ordinary skill in the art at the time of the invention to incorporate the communication links of Kraslavsky into the invention of Ward in order to enable

Art Unit: 2143

the peripheral devices of a terminal to communicate with one another, eliminating the need to use the Peripheral Control Unit.

10. Regarding claim 24, Ward disclosed the limitations, substantially as claimed, as described in claim 20. Ward did not explicitly state wherein an independent associated control application that operates in response to a signal communicated from another peripheral device acknowledges receipt of that signal. Kraslavsky disclosed peripheral devices responding to broadcast signals (Kraslavsky, col. 14, lines 5-15). See motivation above.

11. Regarding claim 25, Ward and Kraslavsky disclosed the limitations, substantially as claimed, as described in claim 20, including wherein each independent associated control application is operable to identify any failed peripheral device that does not acknowledge receipt of a signal, and to communicate the functional state of that failed peripheral device to other independent associated control applications (Kraslavsky, col. 14, lines 5-15). See motivation above.

12. Regarding claim 26, Ward disclosed the limitations, substantially as claimed, as described in claim 20. Ward did not explicitly state wherein each peripheral device uses a registry for maintaining a record of the functioning peripheral devices in the terminal. Kraslavsky disclosed keeping statistics and a log of the devices (Kraslavsky, col. 14, lines 5-15). See motivation above.

13. Regarding claim 27, Ward disclosed the limitations, substantially as claimed, as described in claim 20. Ward did not explicitly state wherein the independent associated control applications implement a team building process for indicating their availability. Kraslavsky disclosed peripheral devices indicating availability (Kraslavsky, col. 14, lines 5-15). See motivation above.

14. Regarding claim 28, Ward and Kraslavsky disclosed the limitations, substantially as claimed, as described in claim 27, including wherein as part of the team building process, each independent associated control application associated with an available peripheral device transmits a start-up signal (Kraslavsky, col. 14, lines 5-15). See motivation above.

15. Regarding claim 29, Ward and Kraslavsky disclosed the limitations, substantially as claimed, as described in claim 28, including wherein the start-up signal includes an identifier for the peripheral device being initialized and an address at which the peripheral device receives signals (Kraslavsky, col. 14, lines 5-15). See motivation above.

16. Regarding claim 30, Ward and Kraslavsky disclosed the limitations, substantially as claimed, as described in claim 29, including wherein the start-up signal is broadcast to other peripheral devices (Kraslavsky, col. 14, lines 5-15). See motivation above.

17. Regarding claim 31, Ward and Kraslavsky disclosed the limitations, substantially as claimed, as described in claim 30, including wherein the start-up signal is communicated directly to predetermined addresses that correspond to other peripheral devices (Kraslavsky, col. 14, lines 5-15, col. 17, lines 30-45).

See motivation above.

18. Regarding claim 32, Ward disclosed the limitations, substantially as claimed, as described in claim 20. Ward did not explicitly state wherein the independent associated control application associated with each peripheral devices creates a functional group registry comprising the addresses and identity of each peripheral device that has sent a startup signal. Kraslavsky disclosed logging device information from startup signals received (Kraslavsky, col. 14, lines 5-15). See motivation above.

19. Regarding claim 33, Ward and Kraslavsky disclosed the limitations, substantially as claimed, as described in claim 32, including wherein each independent associated control application transmits a shut-down signal when its peripheral device is no longer able to operate properly; each independent associated control application being operable to modify its functional group registry in response to a shut-down signal from another peripheral device to indicate the removal of that peripheral device from operation (Kraslavsky, col. 14, lines 5-15, 30-45).

Art Unit: 2143

20. Regarding claim 35, Ward disclosed the limitations, substantially as claimed, as described in claim 20. Ward did not explicitly state wherein, in use, each of the independent associated control applications is executed on a processor within its associated peripheral. Kraslavsky disclosed a printer containing its own processor and running applications (Kraslavsky, col. 14, lines 5-45).

21. Claims 37-40 include limitations similar to the limitations found in claims 20-36, and are therefore rejected under the same art as claims 20-36 as being substantially similar.

Response to Amendment

Applicant's arguments filed 23 September 2005 have been fully considered but they are not fully persuasive.

112 Rejections

Examiner notes the typo of not providing a header stating the 112 grounds of rejection in the prior Office Action dated 6/23/2005. However, the prior Office Action clearly showed which claims were rejected under 112 as being unclear to Examiner. Applicant has provided amendments to claims 20-25, 27, 28, 32-35, 38 and 39 (as stated in the Response, page 10, last paragraph) to clarify the issues regarding these claims. However, Applicant has not responded to the 112 rejection of claim 37, provided above.

Art Unit: 2143

Art Rejections

Applicant states that in the teachings of Ward, "there is no capability for these peripheral devices to also communicate directly with other peripheral devices independently of the ATM." Applicant also states that "Ward does not teach or suggest that peripheral devices communicate directly with other peripheral devices independently, as well as under the control of a central processor." Applicant states that independent claims 20, 37, and 40 recite such functionality. See Applicant's Response, page 16, last paragraph through page 17, first paragraph.

After further search and consideration, Examiner respectfully disagrees. Independent claims 20, 37, and 40 recite peripheral devices within a self-service terminal, the peripheral devices being "controlled by a central processor".

Ward disclosed each ATM including a peripheral control unit (Ward, col. 3, lines 15-16).

Independent claims 20, 37, and 40 recite peripheral devices each "having an independent associated control application, the independent associated control applications being operable to communicate with each other".

Ward disclosed each peripheral device having a subsystem controller for facilitating parallel transaction event processing among the devices (Ward, col. 2, lines 35-41). As shown by Ward in an example, after a card is detected by the card handler mechanism, the ATM may perform printing header information on the customer receipt (Ward col. 2, lines 57-65). This would require the

Art Unit: 2143

information from the card handler peripheral device to be communicated to the printer peripheral device. This would require their respective control applications to be in communication.

Claim Interpretation

As mentioned above, Applicant also states that "Ward does not teach or suggest that peripheral devices communicate directly with other peripheral devices independently.

This functionality of the peripheral devices communicating directly is **NOT REQUIRED** by the claims as explained herein for the following reasons:

Claim 20 recites the clause, "whereby, in use, a peripheral device operates in response to a signal generated by the central processor or another peripheral device".

Claim 37 recites the clause, "so that a peripheral device operates in response to one or more signals generated by the central processor or the independent associated control application of another peripheral device".

Any language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation. See MPEP 2106, section II, subsection C for specific examples.

Even if this weren't the case (not limiting the scope of the claim), as in the case of claim 40, the claims still **DO NOT REQUIRE** the functionality of the peripherals directly communicating because independent claims 20, 37, and 40

Art Unit: 2143

all recite “to operate in response to signals communicated from the central processor **OR** independent associated control applications of the other peripheral devices. The expression, “A or B” is an alternative expression, only requiring either A or B or both. In the case of claim 40, Ward disclosed the control applications operating in response to signals communicated from the central processor (Ward, col. 3, lines 50-60).

Examiner **strongly suggests** clarification of claim terminology, mainly the term, “peripheral device” and what it encompasses.

In Applicant’s previous response filed 1/19/2005, Applicant states “Peripheral devices are well-known in the art as devices controlled by, and subordinate to, a central processing unit in a computer system” [see Applicant’s Response, filed 1/19/2005, page 10, lines 8-13].

In Applicant’s current Response filed 9/23/2005, Applicant argues that the “peripheral devices communicate directly with other peripheral devices independently of the ATM” [see Applicant’s Response, filed 9/23/2005, page 16, last paragraph through page 17, first paragraph].

Examiner is unclear how a peripheral device, which must be controlled by a central processing unit, can communicate with another peripheral device independently of the central processing unit of the ATM.

Examiner respectfully requests clarification of what these peripheral devices include. Examiner also respectfully request Applicant to indicate portions of the Specification that are relied upon.

Examiner also suggests clarification of the difference between an "independent associated control application" and a device driver. What does the control application actually control?

It is the Examiner's position that Applicant has not yet submitted claims drawn to limitations, which define the operation and apparatus of Applicant's disclosed invention in manner, which distinguishes over the prior art. The independent claims, as currently presented only require the standard functionality of an ATM, which is peripheral devices being controlled by a central processing unit, which Ward clearly taught, as shown in the above rejection.

Failure for Applicant to significantly narrow definition/scope of the claims and supply arguments commensurate in scope with the claims implies the Applicant intends broad interpretation be given to the claims. The Examiner has interpreted the claims with scope parallel to the Applicant in the response and reiterates the need for the Applicant to more clearly and distinctly define the claimed invention.

Conclusion

Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the

Art Unit: 2143

applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Bret Dennison whose telephone number is (571) 272-3910. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on (571) 272-3923. The

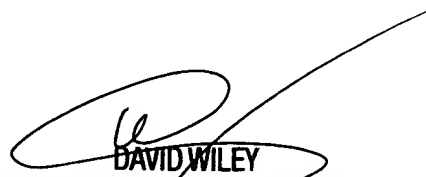
Art Unit: 2143

fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



J. B. D.
Patent Examiner
Art Unit 2143



DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100